## **Change Number** Federal Facility Agreement and Consent Order Date Change Control Form Do not use blue ink. Type or print using black ink. M-24-13-01 July 24, 2013 Originator Phone K. M. Thompson (509) 373-0750 Class of Change [ ] I - Signatories [X] II - Executive Manager [ ] III - Project Manager Change Title Groundwater Protection, Monitoring and Remediation Well Installation Priority List Update Through CY 2016, including a new TPA Interim Milestone and TPA Target date. Description/Justification of Change This change package completes the 2013 Hanford Federal Facility Agreement and Consent Order (TPA) Target Date M-024-64-T01 requirement to conclude discussions of groundwater monitoring well commitments initiated under M-024-58 by August 1, 2013, and to add a new interim M-024 milestone commitment to incorporate new CY 2016 groundwater monitoring well installations to maintain a three-year rolling, prioritized schedule. The schedule resolves competing resource demands, including injection/extraction wells, and reflects current budget planning. Replacement of serviceable monitoring wells not meeting regulatory construction specifications is deferred to support groundwater remediation needs. The Parties have successfully concluded discussions, and by approval of this change package, establish new Interim TPA Milestone M-024-67 for completion of CY 2016 well installations. This change package also creates an August 1, 2016 target date for concluding annual well discussions for well installations through CY 2019. The target date is established as M-024-67-T01. Continued on page 2 Impact of Change This change provides for continued installation of new groundwater protection, monitoring, and remediation wells.

## **Affected Documents**

The Hanford Federal Facility Agreement and Consent Order, as amended, and Hanford Site internal planning management, and budget documents (e.g., USDOE and USDOE contractor Baseline Change Control documents; Multi-Year Work Plan; Sitewide Systems Engineering Control Documents; Project Management Plan, RI/FS documents, RCRA TSD monitoring plans and, if appropriate, LDR Report requirements).

Approvals			
JA Dowell ACR FOR	7.25.13	<b>~</b>	
DOE	Date	Approved	Disapproved
DA Faufk	Thela		
EPA DA DA	Date	Approved	Disapproved
JA Hedges \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- laste	1	
Ecology Carte C. The Ecology	Date	Approved	Disapproved
1	Date (		

Change Form M-24-13-01 Page 2 of 18

## Description/Justification of Change

Continued from page 1

The Parties agree that when a monitoring well is drilled and subsequently is found to be "dry," that the well will still count toward meeting M-024 well drilling totals.

Approval of this change package updates the list of monitoring wells planned to be drilled/constructed in CY 2014 and CY 2015, as well as provides the list of wells for CY 2016. Monitoring wells identified to be drilled/constructed in the years CY 2014 through CY 2016 are identified in the attached table.

Changes to Interim Milestones and Target Dates are displayed by <u>double-underline</u> to indicate addition of text and by <del>strikeout</del> to indicate deletion of text.

M-024-67 Lead agency: Ecology	DOE shall complete the construction of all wells listed for calendar year 2016 and before, as identified in Attachment 1 of TPA change package M-024-13-01. The well listing can be modified with agreement of the Parties at the Project Manager level.  (Note: Refer to M-024-65 for additional text that	12/31/2016
M-024-67-T01 Lead agency: Ecology	Conclude discussions of well commitments initiated under M-024-58 and add a new interim M-024 milestone commitment for December 31, 2019 to incorporate new well installations needed to maintain a three-year rolling prioritized drilling schedule.	08/01/2016

#	Well ID	OU/Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
1	C7626	100-HR-3	199-Н3-6	100-HR-3 #6	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	CY 2014 M-24 Well
2	C7627	100-HR-3	199-H3-7	100-HR-3 #7	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	CY 2014 M-24 Well
3	C7628	100-HR-3	199-Н6-3	100-HR-3 #8	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	CY 2014 M-24 Well
4	C7629	100-HR-3	199-H6-4	100-HR-3 #9	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	CY 2014 M-24 Well
5	C7630	100-HR-3	199-H1-7	100-HR-3 #10	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	CY 2014 M-24 Well
6	C7631	100-HR-3	199-H2-1	100-HR-3 #11	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	CY 2014 M-24
7	C7639	100-HR-3	199-Н3-9	100-HR-3 #13	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	Well CY 2014 M-24
8	C7640	100-HR-3	199-Н3-10	100-HR-3 #14	100-HR-3-H	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	Well CY 2014 M-24
9	C8375	100-HR-3	199-D5-143	100-HR-3 #16	100-HR-3	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 5/10/2011	Well CY 2014 M-24
10	C8187	100-NR-2	199-N-185	100-NR-2 #4	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	Well CY 2014 M-24
11	C8184	100-NR-2	199-N-182	100-NR-2 #1	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	Well CY 2014 M-24
12	C8185	100-NR-2	199-N-183	100-NR-2 #2	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	Well CY 2014 M-24
13	C8186	100-NR-2	199-N-184	100-NR-2 #3	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	Well CY 2014 M-24
14	C8188	100-NR-2	199-N-186	100-NR-2 #5	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	Well CY 2014 M-24 Well

#	STATE OF THE PARTY.	Vell ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
15		8189	100-NR-2	199-N-187	100-NR-2 #6	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	CY 2014 M-24 Well
16		8190	100-NR-2	199-N-188	100-NR-2 #7	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	CY 2014 M-24 Well
17		8191	100-NR-2	199-N-189	100-NR-2 #8	100-NR-2	Obtain Data Supporting the CERCLA RI/FS Process	Accepted 9/29/2011	CY 2014 M-24 Well
18		8204	RCRA	299-E26-14	RCRA	200-BP-5	LERF Monitoring Well - North of facility	Accepted 9/29/2011	CY 2014 M-24 Well
19		8201	RCRA	299-W9-2	RCRA	200-ZP-1	LLWMA-3 Monitor Mixed-Waste Trenches 31 and 34, Up-gradient	Accepted 9/29/2011	CY 2014 M-24 Well
20	C8	8241	200-UP-1	299-W22-96	200-UP-1	200-UP-1	Monitoring Well in 200-UP-1 Groundwater OU	Accepted 10/19/2011	CY 2014 M-24 Well
21	C8	8668	100-HR-3	199-D5-144	WFO #1	100-HR-3	Replacement well 100-D-12 RI/FS	Accepted 11/9/2011	CY 2014 M-24 Well
22	C8	3242	200-BP-5	299-E33-267	200-BP-5	200-BP-5	Monitoring well in the 200-BP-5 Groundwater OU	Accepted 2/15/2012	CY 2014 M-24
23	C8	3725	100-HR-3	199-D5-145	100-HR-3 #1	100-HR-3-D	WCH replacement monitoring wells	Accepted 4/22/2013	Well CY 2014 M-24
24	C8	3728	100-HR-3	199-D5-148	100-HR-3 #2	100-HR-3-D	WCH replacement monitoring wells	Accepted 4/22/2013	Well CY 2014 M-24
25	C8.	3727	100-HR-3	199-D5-147	100-HR-3 #3	100-HR-3-D	WCH replacement monitoring wells	Accepted 4/22/2013	Well CY 2014 M-24
26		3726	100-HR-3	199-D5-146	100-HR-3 #4	100-HR-3-D	WCH replacement monitoring wells	Accepted 4/22/2013	Well CY 2014 M-24
27		3723	100-HR-3	199-H4-85	100-HR-3 #5	100-HR-3-H	WCH replacement monitoring wells	Accepted 4/22/2013	Well CY 2014 M-24
28	C8'	724	100-HR-3	199-Н4-86	100-HR-3 #6	100-HR-3-H	WCH replacement monitoring wells	Accepted 4/22/2013	Well CY 2014 M-24 Well

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
29	C8779		199-B5-9	100-BC-5 #1	100-BC-5 Northeast of 100-C-7:1 (near site)	Addition to well monitoring network as specifiec in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2014 M-24 Well
30	C8780		199-B5-10	100-BC-5 #2	100-BC-5 Northeast of 100-C-7:1 (near site)	Addition to well monitoring network as specifiec in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2014 M-24 Well
3.1	C8781		199-B5-11	100-BC-5 #3	100-BC-5 Northeast of 100-C-7 (mid-distance)	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2015 M-24 Well
32	C8782		199-B5-12	100-BC-5 #4	100-BC-5 Northeast of 100-C-7 (mid-distance)	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2015 M-24 Well
33	C8783		199-B5-13	100-BC-5 #5	100-BC-5 Partner with 199-B5-1	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2015 M-24 Well
34	C8776		199-B4-16	100-BC-5 #6	100-BC-5 East of central	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2015 M-24 Well
35	C8777	100-BC-5	199-B4-17	100-BC-5 #7	100-BC-5 East of central	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2015 M-24 Well
36	C8784	100-BC-5	199-B5-14	100-BC-5 #8	100-BC-5 West of central	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	CY 2015 M-24
37	C8785	100-BC-5	199-B5-15	100-BC-5 #9	100-BC-5 West of central	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	Well CY 2015 M-24
38	C8778	100-BC-5	199-B4-18	100-BC-5 #10	100-BC-5 Partner with 199-B4-7	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	Well CY 2015 M-24
39	C8775	100-BC-5	199-B2-17	100-BC-5 #11	100-BC-5 Between 199- B2-16 and 199-B2-13	Addition to well monitoring network as specified in revised 100-BC-1, 100-BC-2 and 100-BC-5 RI/FS Work Plan / SAP	FY 2013	Well CY 2015 M-24
40	C8797	100-KR-4	199-K-222	100-KR-4 #1	100-KR-4	Monitor potential release of Sr-90 from other fission products from vadose zone beneath UPR-100-K-1, Adjacent to north side of 105-KE	FY 2014	Well CY 2015 M-24
41	C8796	100-KR-4	199-K-221	100-KR-4 #2	100-KR-4	Monitor potential release of Sr-90 from vadose zone beneath 116-KE-3 Crib/Reverse Well	FY 2014	Well CY 2015 M-24 Well

#	10.0	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
42		C8240	RCRA	299-W22-95	RCRA - FY 2013	200-UP-1 SST S-SX, RCRA	Downgradient Existing RCRA monitoring well 299-W22-26 is dry (FY 2013). It is located on the east side of the 216-S-9 Crib downgradient from the S Tank Farm. This monitoring point is being relocated to the north side of the 216-S-9 Crib in anticipation that the groundwater flow direction will change from east to east-northeast in response to the 200-ZP-1 P&T activities.	FY 2013	CY 2015 M-24 Well
43		C8203	RCRA	299-W22-94	RCRA - FY 2013	200-UP-1 SST S-SX RCRA	Existing RCRA monitoring well 299-W22-48 dry. This well is on the south boundary of the plume from the S Tank Farm and has low concentrations of technetium-99, nitrate, and chromium.	FY 2013	CY 2015 M-24 Well
44		C8289	100-KR-4	199-K-202	100-KR-4 #1	100-KR-4	There are no remaining monitoring wells within the extreme concentration Sr-90 plume downgradient of the former 105-KE fuel storage basin. Well 199-K-141 has exhibited rapidly-increasing Sr-90 concentration since starting extraction at that location. This plume is unmonitored and migration of Sr-90 poses a risk to continued successful operation of the 100-KX P&T system	FY 2013 / FY 2014	CY 2015 M-24 Well
45		C8787	100-HR-3	199-H4-90	100-HR-3 #1	100-HR-3 HX IRM	Delineation of Cr(VI) plume to the southwest, located to the south of 199-H3-10 and Solar Evaporation Basin, DH-01	FY 2013 / FY 2014	CY 2015 M-24 Well
46		C8788	100-HR-3	199-H4-91	100-HR-3 #2	100-HR-3 HX IRM	Delineation of Cr(VI) plume within the RUM., DH-02, South of 199-H3-9	FY 2013 / FY 2014	CY 2015 M-24 Well
47		TBD	200-PO-1	TBD	RCRA #1 - FY 2014	200-PO-1 RCRA	Replace decommissioned RCRA well 299-E25-236. Characterize nature of perch horizon, which is associated with accelerated casing corrosion at three nearby wells.	FY 2014	CY 2015 M-24 Well
48		TBD	200-UP-1	TBD	RCRA #2 FY 2014	200-UP-1 WMA U RCRA	Existing RCRA monitoring well 299-W18-30 is forecast to become dry anytime (FY 2013). It is the northernmost well in the monitoring network. This will become an important monitoring location in the future because the groundwater flow direction at WMA U is expected to change from east to	FY 2014	CY 2015 M-24 Well
49		C8772	RCRA	699-24-36	RCRA #3 - FY 2014	200-PO-1 NRDWL/SWL RCRA	northeast in response to the 200-ZP-1 P&T activities NRDWL/SWL monitoring well - 1 of the 2 new upgradient monitoring wells proposed and shown in Figure 4-1 in DOE/RL-2010-28, northwest of NRDWL or west of SWL and well 699-24-35 See Figure 4-1 in DOE/RL-2010-28, Rev. 1 Groundwater Monitoring Plan.	FY 2014	CY 2015 M-24 Well

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
50	C8200	RCRA	699-25-34E	RCRA #4 - FY 2014	200-PO-1 NRDWL/SWL RCRA	NRDWL/SWL monitoring well - Northeast side of NRWDL/SWL waste management area, and southeast of current well 699-25-34C. See Figure 4-1 in DOE/RL-2010-28, Rev. 1 Groundwater Monitoring Plan	FY 2014	CY 2015 M-24 Well
51	C8774	RCRA	699-26-38	RCRA #5 - FY 2014	200-PO-1 NRDWL/SWL RCRA	NRDWL SWL monitoring well - Northeast side of NRWDL/SWL waste management area, and southeast of current well 699-25-34C. See Figure 4-1 in DOE/RL-2010-28, Rev. 1 Groundwater Monitoring Plan	FY 2014	CY 2015 M-24 Well
52	TBD	200-BP-5	TBD	Modutank #1	200-BP-5 RCRA	Modutank Monitoring Wells Upgradient Modutank monitoring well. Based on DOE/RL-2009-39, if the modular storage unit will be used after 8/5/2014 or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring. WAC 173-303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265.91 it is assumed one upgradient and three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014. required FY 2015 / FY 2016		CY 2015 M-24 Well
53	TBD	200-BP-5	TBD	Modutank #2	200-BP-5 RCRA	Modutank Monitoring Wells Downgradient Modutank monitoring well. Based on DOE/RL- 2009-39, if the modular storage unit will be used after 8/5/2014 or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring WAC 173- 303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265-91 it is assumed one upgradient and three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014 required FY 2015 / FY 2016		CY 2015 M-24 Well
54	TBD	200-BP-5	TBD	Modutank #3	200-BP-5 RCRA	Modutank Monitoring Wells Downgradient Modutank monitoring well Based on DOE/RL- 2009-39, if the modular storage unit will be used after 8/5/2014 or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring. WAC 173- 303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265-91 it is assumed one upgradient and		CY 2015 M-24 Well

#	Wel ID	OU/Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
						three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014. required FY 2015 / FY 2016		
55	TBD		TBD	Modutank #4	200-BP-5 RCRA	Modutank Monitoring Wells Downgradient Modutank monitoring well. Based on DOE/RL- 2009-39, if the modular storage unit will be used after 8/5/2014 or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring. WAC 173- 303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265-91 it is assumed one upgradient and three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014. required FY 2015 / FY 2016		CY 2015 M-24 Well
56	C873		199-D5-150	100-HR-3	100-HR-3 - WCH #1	WCH replacement monitoring wells 100-D-100 along NE upgradient edge - replacing 199-D5-144	FY 2015	CY 2015 M-24 Well
57	C873	1 100-HR-3	199-D5-151	100-HR-3	100-HR-3 - WCH #2	WCH replacement monitoring wells - N side of the 100-D-100 - replacing 199-D5-99	FY 2015	CY 2015 M-24 Well
58	C873.	2 100-HR-3	199-D5-152	100-HR-3	100-HR-3 - WCH #3	WCH replacement monitoring wells E side of 100- D-100 former hotspot - replacing 199-D5-122	FY 2015	CY 2015 M-24 Well
59	C873.		199-H4-87	100-HR-3	100-HR-3 - WCH #4	WCH replacement monitoring wells - replacing 199- H4-48	FY 2015	CY 2015 M-24
60	C8734		199-H4-88	100-HR-3	100-HR-3 - WCH #5	WCH replacement monitoring wells - replacing 199- H4-7	FY 2015	Well CY 2015 M-24
61	C873:		199-H4-89	100-HR-3	100-HR-3 - WCH #6	WCH replacement monitoring wells - replacing 199- H4-9	FY 2015	Well CY 2016 M-24
62	C8729	100-HR-3	199-D5-149	100-HR-3	100-HR-3 - WCH #7	WCH replacement monitoring wells - area S of 183- D clearwells to provide downgradient monitoring of the N portion of 100-D-100 - replacing 199-D5-120	FY 2015	Well CY 2016 M-24 Well

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
63	C8736	100-HR-3	199-D3-6	100-HR-3 #1	100-HR-3	Delineation of Cr(VI) plume , South Flank - DH-06		Year CY 2016 M-24
64	C8793	100-HR-3	699-97-60	100-HR-3 #2	100-HR-3	Delineation of Cr(VI) plume within the RUM - in the HORN by 199-D3-5 - DH-08, downgradient 699-97-48C		Well CY 2016 M-24
65	C8794	100-HR-3	699-97-61	100-HR-3 #3	100-HR-3	Delineation of Cr(VI pume within the RUM - in the HORN - DH-09, upgradient 699-97-48C		Well CY 2016 M-24 Well
66	C8290	100-KR-4	199-K-203	100-KR-4 #1	100-KR-4 approx 70 m North toward river of former well 199-K-29	There are no remaining monitoring wells within the extreme concentration C-14 plume downgradient of the former 116-KE-1 Gas Dryer Condensate CribWell 199-K-141 has exhibited increasing C-14 concentration since starting extraction at that location. This plume is unmonitored; migration of C-14 and potential interception of the plume by extraction wells poses a risk to continued successful operation of the 100-KX P&T system.		CY 2016 M-24 Well
67	C8291	100-KR-4	199-K-204	100-KR-4 #2	100-KR-4	There are no monitoring wells in this area that transport estimates indicate contains the highest estimated C-14 concentration plume at 100-K Migration of C-14 toward the river and potential interception of the plume by extraction wells poses a risk to continued successful operation of the 100-KW P&T system.		CY 2016 M-24 Well
68	C8294	100-KR-4	199-K-207	100-KR-4 #3	100-KR-4	High residual vadose zone contamination by tritium was observed at the completion of soil RTD at the burial ground in the vicinity. No monitoring wells currently provide observation of potential ongoing contributions to groundwater contamination.  Groundwater monitoring and vadose zone release detection.		CY 2016 M-24 Well
69	C8298	100-KR-4	199-K-211	100-KR-4 #4	100-KR-4	Riverward of 199-K-210. Previously-identified RPO well. Improve hexavalent chromium plume		CY 2016 M-24
70	TBD	100-KR-4	TBD	100-KR-4 #5	100-KR-4	depiction in this vicinity  Within footprint of former 116-KE-1 Gas  Condensate Crib		Well CY 2016 M-24
71	TBD	100-KR-4	TBD	100-KR-4 #6	100-KR-4	Within footprint of former 116-KW-1 Gas Condensate Crib		Well CY 2016 M-24
72	C8296	100-KR-4	199-K-209	100-KR-4 #7	100-KR-4	Unmonitored area between inland monitoring wells that exhibit hexavalent chromium Midway between		Well CY 2016 M-24

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
						existing wells 199-K-194 and 699-77-54		Well
73	TBD	200-BP-5	TBD	200-BP-5	200-BP-5 RCRA	Replacement well for non-WAC compliant well 299-E33-18, decommissioned FY 2013 Permit conditions for WMA B/BX/BY		CY 2016 M-24 Well
74	TBD	200-BP-5	TBD	200-BP-5	200-BP-5 RCRA	Replacement well for non-WAC compliant well 299-E27-7. Permit conditions for WMA C.		CY 2016 M-24 Well
75	TBD	200-UP-1	TBD	200-UP-1	WMA U RCRA	SST S-SX monitoring well east of SX Farm Replacement well 299-W19-12, not RCRA/WAC compliant		CY 2016 M-24 Well
76	TBD	100-NR-2	TBD	100-NR-2	100-NR-2	As close to original location as possible - As close to original location 199-N-80		CY 2016 M-24 Well
77	TBD	200-BP-5	TBD	200-BP-5 #1	200-BP-5	NE Downgradient well for WMA B/BX/BY Nearfield well southeast of WMA B/BX/BY between well 299-E33-37 and the 207-B Retention Basin at top of aquifer		CY 2016 M-24 Well
78	TBD	200-BP-5	TBD	200-BP-5 #2	200-BP-5	Center Downgradient well for WMA B/BX/BY Nearfield well southeast of WMA B/BX/BY between well 299-E33-37 and the 207-B Retention Basin at top of aquifer		CY 2016 M-24 Well
79	TBD	200-BP-5	TBD	200-BP-5 #3	200-BP-5	SW Downgradient well for WMA B/BX/BY Nearfield well southeast of WMA B/BX/BY between well 299-E33-37 and the 207-B Retention Basin at top of aquifer		CY 2016 M-24 Well
80	TBD	200-BP-5	TBD	200-BP-5 #4	200-BP-5	Deep Downgradient well for WMA B/BX/BY Nearfield well southeast of WMA B/BX/BY between well 299-E33-37 and the 207-B Retention Basin at bottom of aquifer		CY 2016 M-24 Well
81	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #1	UP-1 RDRA Work Plan Monitoring Well #1		CY 2016 M-24
82	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #2	UP-1 RDRA Work Plan Monitoring Well #2		Well CY 2016 M-24
83	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016#3	UP-1 RDRA Work Plan Monitoring Well #3		Well CY 2016 M-24
84	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #4	UP-1 RDRA Work Plan Monitoring Well #4		Well CY 2016 M-24 Well

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
85	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #5	UP-1 RDRA Work Plan Monitoring Well #5		CY 2016 M-24
86	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #6	UP-1 RDRA Work Plan Monitoring Well #6		Well CY 2016 M-24
87	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #7	UP-1 RDRA Work Plan Monitoring Well #7		Well CY 2016 M-24
88	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #8	UP-1 RDRA Work Plan Monitoring Well #8		Well CY 2016 M-24
89	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #9	UP-1 RDRA Work Plan Monitoring Well #9		Well CY 2016 M-24
90	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2016 #10	UP-1 RDRA Work Plan Monitoring Well #10		Well CY 2016 M-24
91	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 RCRA	200-ZP-1 RCRA Monitoring Well #1		Well CY 2017 M-24
92	TBD	200-ZP-1	TBD	RCRA	200-ZP-1	200-ZP-1 CERCLA Monitoring Well #1		Well CY 2017 M-24
93	TBD	200-ZP-1	TBD	RCRA	200-ZP-1	200-ZP-1 CERCLA Monitoring Well #2		Well CY 2017 M-24
94	TBD	200-BP-5	TBD	200-BP-5 #5	200-BP-5 Farfield Well WMA B/BX/BY #1	NE Three additional farfield wells are recommended between well 299-E27-19 and 299-E28-5.		Well CY 2017 M-24
95	TBD	200-BP-5	TBD	200-BP-5 #6	200-BP-5 Farfield Well WMA B/BX/BY #2	C Three additional farfield wells are recommended between well 299-E27-19 and 299-E28-5.		Well CY 2017 M-24
96	TBD	200-BP-5	TBD	200-BP-5 #7	200-BP-5 Farfield Well WMA B/BX/BY #3	SW Three additional farfield wells are recommended between well 299-E27-19 and 299-E28-5.		Well CY 2017 M-24
97	TBD	200-BP-5	TBD	200-BP-5 #8	Nearfield well 216-B-12 Crib	Nearfield wells are recommended southeast and east of the 216-B-12 Crib. The recommend depth is between 22 to 32 feet within the aquifer. The purpose to monitor the extent of nitrate, tritum, and uranium contamination found during BP-5 RI drilling and sampling at this depth.		Well CY 2017 M-24 Well

#	We	E 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
98	ТВ		TBD	200-BP-5 #9	Nearfield well 216-B-12 Crib	Nearfield wells are recommended southeast and east of the 216-B-12 Crib. The recommend depth is between 22 to 32 feet within the aquifer. The purpose to monitor the extent of nitrate, tritum, and uranium contamination found during BP-5 RI drilling and sampling at this depth.		CY 2017 M-24 Well
99	ТВ		TBD	200-BP-5 #10	Nearfield well south of 216-B-6 Injection Well	Nearfield wells are recommended southwest and south of the 216-B-6 Injection Well. The recommend depth is between at the bottom of the aquifer. The purpose to monitor the extent of nitrate and tritum contamination found during BP-5 RI drilling and sampling at this depth.		CY 2017 M-24 Well
100	ТВ		TBD	200-BP-5 #11	Nearfield well southwest of 216-B-6 Injection Well	Nearfield wells are recommended southwest and south of the 216-B-6 Injection Well. The recommend depth is between at the bottom of the aquifer. The purpose to monitor the extent of nitrate and tritum contamination found during BP-5 RI drilling and sampling at this depth.		CY 2017 M-24 Well
101	C82		299-W22-93	RCRA	200-UP-1 WMA S-SX	Existing RCRA monitoring well 299-W22-44 is forecast to become sample dry during 2013. It is within the plume from the S Tank Farm and is the nearest downgradient well from the source (tank S-104). It is also adjacent to extraction well 299-W22-90, so 299-W22-44 (or its replacement) will also be used as a remedy performance well. The replacement well, 299-W22-93, is already staked in the field. Well 299-W22-44 is listed for quarterly sampling in DOE/RL-2009-73. A SAP has been prepared that specifies the samples to be collected during drilling (DOE/RL-2010-130).		CY 2017 M-24 Well
102	ТВІ	200-PO-1	TBD	200-PO-1 #1	200-PO-1 NRDWL/SWL RCRA	1 of up to 4 farfield downgradient monitoring wells proposed and shown in Figure 4.1 DOE/RL-2010-28, Rev. 1) located in a slanted line on the east side of NRDWL and SWL.		CY 2017 M-24 Well
103	TBI		TBD	RCRA	WMA S-SX RCRA	SST S-SX monitoring well east of SX Farm Replacement well 299-W22-50 going dry FY 2014/2015		CY 2017 M-24
104	TBI	200-UP-1	TBD	RCRA	WMA S-SX RCRA	SST S-SX monitoring well east of SX Farm Replacement well 299-W22-49 going dry FY 2015/2016		Well CY 2017 M-24 Well

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
105	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 RCRA	200-ZP-1 RCRA Monitoring Well #2		Year CY 2017 M-24 Well
106	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2016	200-ZP-1 CERCLA Monitoring Well #3		CY 2017 M-24
107	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2017	200-ZP-1 CERCLA Monitoring Well #4		Well CY 2017 M-24 Well
108	TBD	200-PO-1	TBD	200-PO-1 #2	200-PO-1 NRDWL/SWL RCRA	2 of up to 4 farfield downgradient monitoring wells proposed and shown in Figure 4.1 DOE/RL-2010-28, Rev.1) located in a slanted line on the east side of NRDWL and SWL.		CY 2017 M-24 Well
109	TBD	200-PO-1	TBD	200-PO-1 #3	200-PO-1 NRDWL/SWL RCRA	3 of up to 4 farfield downgradient monitoring wells proposed and shown in Figure 4.1 DOE/RL-2010-28, Rev.1) located in a slanted line on the east side of NRDWL and SWL.		CY 2017 M-24 Well
110	TBD	200-PO-1	TBD	200-PO-1 #4	200-PO-1 NRDWL/SWL RCRA	4 of up to 4 farfield downgradient monitoring wells proposed and shown in Figure 4.1 DOE/RL-2010-28, Rev 1) located in a slanted line on the east side of NRDWL and SWL.		CY 2017 M-24 Well
111	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #1	UP-1 RDRA Work Plan Monitoring Well #11		CY 2017 M-24 Well
112	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #2	UP-1 RDRA Work Plan Monitoring Well #12		CY 2017 M-24
113	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #3	UP-1 RDRA Work Plan Monitoring Well #13		Well CY 2017 M-24
114	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #4	UP-1 RDRA Work Plan Monitoring Well #14		Well CY 2017 M-24
115	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #5	UP-1 RDRA Work Plan Monitoring Well #15		Well CY 2017 M-24
116	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017#6	UP-1 RDRA Work Plan Monitoring Well #16		Well CY 2017 M-24
117	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #7	UP-1 RDRA Work Plan Monitoring Well #17		Well CY 2017 M-24 Well

#	Well ID	OU/Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
118	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #8	UP-1 RDRA Work Plan Monitoring Well #18		Year CY 2017 M-24
119	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #9	UP-1 RDRA Work Plan Monitoring Well #19		Well CY 2017 M-24
120	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2017 #10	UP-1 RDRA Work Plan Monitoring Well #20		Well CY 2017 M-24
121	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2017	200-ZP-1 CERCLA Monitoring Well #5		Well CY 2018 M-24
122	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2017	200-ZP-1 CERCLA Monitoring Well #6		Well CY 2018 M-24
123	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 RCRA	200-ZP-1 RCRA Monitoring Well #3		Well CY 2018 M-24
124	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2018#1	UP-1 RDRA Work Plan Monitoring Well #21		Well CY 2018 M-24
125	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2018 #2	UP-1 RDRA Work Plan Monitoring Well #22		Well CY 2018 M-24
126	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2018 #3	UP-1 RDRA Work Plan Monitoring Well #23		Well CY 2018 M-24
127	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2018 #4	UP-1 RDRA Work Plan Monitoring Well #24		Well CY 2018 M-24
128	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2018 #5	UP-1 RDRA Work Plan Monitoring Well #25		Well CY 2018 M-24
129	TBD	200-UP-1	TBD	CERCLA	UP-1 FY 2018 #6	UP-1 RDRA Work Plan Monitoring Well #26		Well CY 2018 M-24
130	TBD	200-ZP-1	TBD	RCRA	200-ZP-1, RCRA	LLWMA-2 monitoring well - East of Trench 94 - Upgradient Contingent on results of geophysical investigations - current identified in DOE/RL 2009- 76 Green Island Wells		Well CY 2018 M-24 Well
131	TBD	200-ZP-1	TBD	RCRA	200-ZP-1, RCRA	LLWMA-2 monitoring well - downgradient, location TBD Contingent on results of geophysical investigations and Permit Conditions - current		CY 2018 M-24 Well

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
						identified in DOE/RL 2009-76 - Green Island Wells		1 cai
132	TBD	200-ZP-1	TBD	RCRA	200-ZP-1, RCRA	LLWMA-2 monitoring well - downgradient location TBD Contingent on results of geophysical investigations and Permit Conditions - current identified in DOE/RL 2009-76 - Green Island Wells		CY 2018 M-24 Well
133	TBD	200-ZP-1	TBD	RCRA	200-ZP-1, RCRA	LLWMA-4 Monitoring well - west side - upgradient There is no upgradient well; contingent on future monitoring requirements		CY 2018 M-24 Well
134	TBD	200-ZP-1	TBD	RCRA	200-ZP-1, RCRA	LLWMA-3 Monitoring Well - East of Mixed-Waste Trenches 31 and 34 - Downgradient Complete the compliance-point monitoring network for Permit conditions		CY 2018 M-24 Well
135	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2017	200-ZP-1 CERCLA Monitoring Well #7		CY 2018 M-24
136	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2017	200-ZP-1 CERCLA Monitoring Well #8		Well CY 2018 M-24
137	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2018	200-ZP-1 CERCLA Monitoring Well #9		Well CY 2018 M-24
138	TBD	100-NR-2	TBD	RCRA 100- NR-2 #7	Upgradient well for 1301-N	Replacement of 199-N-57		Well CY 2018 M-24
139	TBD	100-NR-2	TBD	RCRA 100- NR-2 #1	Downgradient well RCRA	Replacement of A4669 199-N-2 WMA-S-SX 116-N-1 RCRA		Well CY 2018 M-24
140	TBD	100-NR-2	TBD	RCRA 100- NR-2 #2	Downgradient well RCRA	Replacement of A4679 199-N-3 116-N-1 116-N-1 RCRA		Well CY 2018 M-24
141	TBD	100-NR-2	TBD	RCRA 100- NR-2 #3	Downgradient well RCRA	Replacement of A4683 199-N-34 116-N-3 116-N-1 RCRA		Well CY 2018 M-24
142	TBD	100-NR-2	TBD	RCRA 100- NR-2 #4	Downgradient well RCRA	Replacement of A4677 199-N-28 WMA-C 116-N-3 RCRA		Well CY 2018 M-24
143	TBD	100-NR-2	TBD	RCRA 100- NR-2 #5	Downgradient well RCRA	Replacement of A4681 199-N-32 116-N-3 116-N-3 RCRA	70 THE WAR	Well CY 2018 M-24
144	TBD	100-NR-2	TBD	RCRA 100- NR-2 #6	Downgradient well RCRA	Replacement of A4689 199-N-41 WMA-U 116-N-3 RCRA		Well CY 2018 M-24

#	Well ID	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar Year
								Well
145	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2018	200-ZP-1 CERCLA Monitoring Well #10		CY 2018 M-24
146	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2018	200-ZP-1 CERCLA Monitoring Well #11		Well CY 2018 M-24 Well
147	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 FY 2018	200-ZP-1 CERCLA Monitoring Well #12		CY 2018 M-24 Well
148	TBD	RCRA	TBD	RCRA	TBD	IDF monitoring well - downgradient Plan at least two years prior to IDF operations		CY 2018 M-24 Well
149	TBD	RCRA	TBD	RCRA	TBD	IDF monitoring well - downgradient Plan at least two years prior to IDF operations		CY 2018 M-24 Well
150	TBD	RCRA	TBD	RCRA	TBD	IDF monitoring well - upgradient Plan at least two years prior to IDF operations		CY 2018 M-24 Well
151	TBD	100-KR-4	TBD	AEA	100-KR-4	Replacement of A4643 199-K-11 WMA-B-BX-BY KE Basins AEA		Wen
152	TBD	100-KR-4	TBD	AEA	100-KR-4	Replacement of A4644 199-K-13 WMA-T KE Basins AEA		
153	TBD	100-KR-4	TBD	AEA	100-KR-4	Replacement of A4652 199-K-23 WMA-B-BX-BY KE Basins AEA		
154	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4873 299-E33-9 SALDS WMA-B-BX-BY RCRA		
155	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4844 299-E33-18 WMA-B-BX-BY WMA-B-BX-BY RCRA		
156	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4842 299-E33-15 KE Basins WMA-B-BX-BY RCRA		
157	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A6855 299-E33-16 WMA-B-BX-BY WMA-B-BX-BY RCRA		
158	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4843 299-E33-17 WMA-B-BX-BY WMA-B-BX-BY RCRA		
159	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4847 299-E33-20 KE Basins WMA-B-BX-BY RCRA		

A CONTRACTOR	CO INC. NO.	Inches Inches		The state of the state of				
#	Well ID	OU7 Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Planned Campaign	TPA Calendar
160	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A6788 299-E28-8 SALDS WMA-B-BX-BY RCRA		Year
161	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4848 299-E33-21 WMA-B-BX-BY WMA-B-BX-BY RCRA		
162	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4850 299-E33-26 116-N-1 WMA-B-BX-BY RCRA		
163	TBD	200-BP-5	TBD	RCRA	200-BP-5 RCRA	Replacement of A4816 299-E27-7 KE Basins WMA-C RCRA		
164	TBD	200-PO-1	TBD		200-PO-1	Replacement of A5089 699-24-33 WMA-T SWL WAC		
165	TBD	200-PO-1	TBD	RCRA	200-PO-1 RCRA	Replacement of A4766 299-E25-2 WMA-T WMA-A-AX RCRA		
166	TBD	200-PO-1	TBD	RCRA	200-PO-1 RCRA	Replacement of A6031 299-E25-17 116-H-6 216- A-37-1 RCRA		
167	TBD	200-PO-1	TBD	RCRA	200-PO-1 RCRA	Replacement of A4765 299-E25-19 216-A-37-1 216-A-37-1 RCRA		
168	TBD	200-PO-1	TBD	RCRA	200-PO-1 RCRA	Replacement of A4767 299-E25-20 216-A-37-1 216-A-37-1 RCRA		
169	TBD	200-PO-1	TBD	RCRA	200-PO-1 RCRA	Replacement of A4771 299-E25-26 116-N-3 216-A-29 RCRA		
170	TBD	200-UP-1	TBD	CERCLA	200-UP-1	Replacement of A5139 699-35-66A WMA-B-BX-BY ERDF CERCLA		
171	TBD	200-UP-1	TBD	RCRA	200-UP-1 RCRA	Replacement of A4968 299-W22-26 SALDS WMA-S-SX RCRA		
172	TBD	200-UP-1	TBD	RCRA	200-UP-1 RCRA	Replacement of A4945 299-W19-12 116-N-1 WMA-U RCRA		
173	TBD	200-ZP-1	TBD	RCRA	200-ZP-1 RCRA	Replacement of A7136 299-W10-1 SITE WMA-T RCRA		
174	TBD	200-ZP-1	TBD		200-ZP-1	Replacement of A5221 699-49-79 SWL SALDS WAC		
175	TBD	200-ZP-1	TBD	RCRA	200-ZP-1	Replacement of A7137 299-W10-4 KE Basins WMA-T RCRA		
176	TBD	200-ZP-1	TBD	RCRA	200-ZP-1	Replacement of A4902 299-W11-12 WMA-B-BX-BY WMA-T RCRA		
177	TBD	200-ZP-1	TBD		200-ZP-1	Replacement of A5214 699-48-71 WMA-B-BX-BY SALDS WAC		

## Change Form M-24-13-01 Page 18 of 18

#	Well	OU / Other	Comments	Temporary Name	Program/Facility Name/ Locations	JuxtlReation/Purpose	Planned Campaign	TPA
178	TBD	200-ZP-1	TBD		200-ZP-1	Replacement of A5232 699-51-75 ERDF SALDS WAC		Yen
179	TBD	200-ZP-1	TBD		200-ZP-1	Replacement of A9730 699-51-75P SALDS SALDS WAC		
180	TBD	200-ZP-1	TBD	RCRA	200-ZP-1	Replacement of A4899 299-W10-8 WMA-B-BX-BY WMA-T RCRA		